



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
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REF: 8EPR-ER

**POLLUTION REPORT
LIBBY ASBESTOS
Libby, Lincoln County, Montana**

I. HEADING

Date: August 12, 2000
Site Name: Libby Asbestos (Export & Screening Plants)
From: Paul Peronard, OSC
Duc Nguyen, OSC
To: Patty Smith, EPA Headquarters
POLREP No.: #1

II. BACKGROUND

Site No.: BC
Response Authority: CERCLA
CERCLIS No: MT0009083840
NPL Status: NA
Action Memorandum Status: Approved 5/23/00
Start Date : 6/01/00
Demobilization Date: TBD
Completion Date: TBD

III. SITE INFORMATION

A. Incident Category

Time Critical, Fund-Lead and PRP-Lead

B. Site Description

Vermiculite was discovered in Libby, Montana, in 1881 by gold miners, and in the 1920's the Zonolite Company began mining it. Before the mine closed in 1990, Libby produced about 80% of the world's supply of vermiculite. Vermiculite



has been used in building insulation and as a soil conditioner. In Libby, refining operations, handling materials containing amphibole asbestos fibers, occurred at four main locations:

- The Mine and Mill located on the Rainy Creek Road on top Zonolite Mountain;
- The Screening Plant (screening and sizing) and Railroad Loading Station which are located astride the Kootenai River (Intersection of Highway 37 and Rainey Road) and occupy approximately 21 acres; and
- The Expansion/Export Plant (exfoliation and shipping) which is located off Highway 37 and at the end of Lincoln Road and occupies approximately 11 acres.

1. Site Location

The Site is located in Montana within Sections 3 and 10, T.30N., R.31W. of the Libby Quadrangle, in the County of Lincoln.

2. Description of Threat

Recent sampling conducted by EPA's removal program in December 1999 through April 2000 detected amphibole asbestos fibers at concentrations of concern in indoor air samples collected at the Screening Plant and at the Export Plant. These sample results indicate an on-going risk to workers and residents at and near these locations. The Screening Plant is now a primary residence and nursery business with two main occupants. The Export Plant is owned by the City of Libby but is leased by a lumber yard. The Export Plant is located adjacent to a large open field that was formerly used as two baseball fields. Access to the area is unrestricted during non-business hours. The potential release to the residents of Libby and surrounding communities is lingering asbestos contamination related to a vermiculite mine site located approximately 7 miles north of the town. In the past, former mine employees, family members, and residents of Libby and surrounding communities have complained of respiratory illness. The individuals affected in the incidents speculate that the symptoms may be the result of asbestos exposure during mining operations and subsequent years following the closure of the mine.

C. Preliminary Assessment/Site Inspection Results

The initial investigation revealed two important findings:

- There are a large number of current and historic cases of asbestos related diseases centered around Libby, Montana; and

- **High amounts of asbestos contaminated vermiculate remain at the Screening Plant, the Export Plant, and in the tailings pile/pond at the mine as well as in and around residences in Libby.**

At the Screening Plant, amphibole asbestos was detected [using polarized light microscopy (PLM)] in 84 of 102 samples collected - with 18 samples containing asbestos at or above 2% by weight and one sample as high as 4% asbestos. Also at the Screening Plant, rocks containing high concentrations of fibrous form amphibole asbestos have been uncovered. Based on the pit tests recently performed, soil contaminated with greater than 2% asbestos was found at several areas at a 10-foot depth.

Similarly, at the Export Plant, 76 out of 109 samples contained detectable levels of amphibole asbestos by PLM, with 17 samples containing asbestos at or greater than 2%, and one sample measuring 10%. At both properties, pockets of unexpanded and expanded vermiculite are visible at the surface in many locations.

IV. RESPONSE INFORMATION

A. Situation

1. Current situation/Removal actions to date:

The Removal Action initially addressed the high concentrations of asbestos detected at two former vermiculite processing plants located in Libby: the Screening Plant and the Export Plant. As of March 2000, EPA has sampled more than 80 locations including 40 homes, “hot spots”, school, and business buildings. This subsequent sampling, analysis, and evaluation may identify additional time critical threats.

The Export Plant: W.R. Grace is undertaking the Removal Action by a UAO (CERCLA-8-2000-10). This 12-acres milling-operation Site consists of a Pole Barn with adjacent Retail Office, a Warehouse, Lumber Storage, a Planner Shop, and a Small Shed. The following primary activities are required by the UAO:

- **Temporary relocation of the on-site business;**
- **Cleaning of affected building/contents, and structures;**
- **Excavation of asbestos impacted soil, debris and vermiculite;**
- **Preparation of a disposal location at the mine;**
- **Transportation and disposal of waste; and**
- **Property restoration.**

W.R. Grace has ordered two temporary pole barns to relocate the Millwork West at off Highway 2 and scheduled for completion of installation by September 25, 2000. The planer building is being cleaned for asbestos and/or vermiculite particles and scheduled to be returned to Millwork West on September 4, 2000.

The Screening Plant: EPA has tasked the Environmental Engineering Division of the John A. Volpe National Transportation System Center of Department of Transportation (DOT) and their contractors (MARCOR, CDM and PES) for this cleanup. This approximately 21-acres plant consists of a nursery main office, the owner's residence, 5 green houses, shade house, fruit stand, long shed, west shed, break room, lab and extraction room, and 2 underground tunnels (L- and U-shaped). In general, the primary removal activities are described below:

- Relocation of owners during removal activities;
- Consultation with state and locals for Archeological Site due to the presence of an Native American encampment;
- Appraisal of owners' property;
- Demolition of nursery structures including underground tunnels;
- Surface excavation of asbestos-contaminated soil; and
- Backfill and Restoration;

EPA will attempt to reach an agreement to reimburse the owners replacement items that cannot be cleaned. EPA demolished the green houses and the owner's house and continues to excavate soil and stockpile soil at the screening plant. Alternative disposal sites are being evaluated for repository.

Medical Testing Program: This program is designed to give everyone, who lived, worked, attended school or played in the Libby area for at least six months prior to December 31, 1990, current information about the health of their lungs associated with asbestos-related disease and to determine how many people in Libby may need specialized follow-up health care.

As of July 18, 806 individuals of a projected 3620 have been screened and tested for potential asbestos exposure, using chest X-rays and pulmonary function tests. EPA, ATSDR, and PHS have formed a committee to address both short and long term health care.

Performance Evaluation Plan Project: Since the existing analytical methods to support evaluation of asbestos in solid media are not well-suited, EPA is

currently working with HQ, USGS, EPA's contractors, and other agencies to develop and refine methods for the analysis and characterization of asbestos in soil and other related media.

3. Enforcement

- *W.R. Grace sent EPA a letter on June 9, 2000, essentially outlining it's arguments for a future claim against the Agency under CERCLA Section 106(b). Grace contends that "EPA's soil removal decision is arbitrary and capricious", "EPA's endangerment findings are unfounded", and "much of the proposed work is unnecessary".*
- *A number of violations of the UAO by W. R. Grace are apparently occurring at the Export Plant. EPA also tried negotiating with W.R. Grace to resolve the access issues related to cleanups at Libby. Unfortunately, these negotiations were unsuccessful. W.R. Grace is unwilling to allow EPA to dispose of soils from the emergency removals at the Zonolite mine. EPA is seeking access through other means.*

B. Planned Removal Actions

Provide Training courses/Conferences:

- **Asbestos Awareness Training (July 29, 2000);**
- **Hazardous Waste Operations and Emergency Response Training (HAZWOPER) (August 22-25, 2000).**
- **Asbestos and Public Health Conference (September 21-23, 2000)**

Continue revamping and developing the sampling and analytical techniques, as well as revising the risk assessment model for tremolite asbestos risk.

Continue to oversight the removal activities at the Export Plant and excavate the asbestos contaminated soil at the Screening Plant.

C. Next Steps

- **Working with ATSDR, PHS , Montana DPHHS and locals to identify short term and long term needs of cleanup and health care for the Libby community.**
- **Developing the Transition Plan to turn over the medical testing program to local hospital at the end of September, 2000.**

D. Key Issues

- Establishing a repository for the excavated soil and debris at the Screening Plant.
- Seeking access agreements to 1) the mine (oversight and repository) and 2) KDC properties adjacent to the Screening Plant to cleanup (which now is owned by W.R. Grace).

V. COST INFORMATION

Total Site Ceiling

Costs (as of 8/13/00):

\$5,815,000

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|---|--|-------------------|
| – | DOT and its Contractors (Screening Plant) | \$ 828,177 |
| – | ISSI | N/A |
| – | USGS | N/A |

VI. DISPOSITION OF WASTES

(None at this time)